ABSTRACT

A push-pull signal Spp fetched with tracking open is smoothed to a smoothing signal Spp to remove signal components generated wobbling due to radial runout, and the smoothing signal is binarized to compute an autocorrelation value in the autocorrelation computing circuit 210. This computing is made by multiplying the binarized signal by a signal delayed by the half cycle and sign-negated to compute the integrated value, and the integrated value output signal Dint is generated. A maximum value of the integrated value output signal Dint within a predetermined period of time is computed by the maximum value holding circuit 220 to output a maximum value output signal Dout. Depending on the amplitude of the maximum value signal Dout, the CPU 105 determines whether the recording medium is a writable one or read only one. Wobble determination can be made keeping tracking open, and a type of a recording medium is carried out accurately.